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1 Routine/Function Prologues

1.0.1 clm2_singleout.F90 (Source File: clm2_singleout.F90)

Write output file for a single CLM variable

REVISION HISTORY:

14 Jun 2002; Sujay Kumar Initial Specification

INTERFACE:

```
subroutine clm2_singleout (ld,tile, var_array, index)
```

USES:

```
use lis_module      ! LDAS non-model-specific 1-D variables
use tile_module
use clm_varcon, ONLY : denh2o, denice, hvap, hsub, hfus, istwet
use clm_varpar, ONLY : nlevsoi
use clm_varmap, ONLY : patchvec
use clm_varctl, only : clmdrv
```

CONTENTS:

```
!-----
! Test to see if output writing interval has been reached
!-----
if(mod(ld%t%gmt,clmdrv%writeintc2).eq.0)then
!-----
! Generate directory structure and file names for CLM Output
!-----
length = len(trim(vname1(index)))
WRITE(UNIT=temp, FMT='(A10)') VNAME1(index)
READ(UNIT=temp,FMT='(10A1)') (FVARNAME(I), I=1,length)
WRITE(unit=temp,fmt='(I4,I2,I2)')LD%T%YR,LD%T%MO,LD%T%DA
READ(unit=temp,fmt='(8a1)')FTIME
DO I=1,8
    IF(FTIME(I).EQ.(' '))FTIME(I)='0'
ENDDO

WRITE(unit=temp,fmt='(I4)')LD%T%YR
READ(unit=temp,fmt='(8a1)')FTIMEC
DO I=1,4
    IF(FTIMEC(I).EQ.(' '))FTIMEC(I)='0'
ENDDO

WRITE(unit=temp,fmt='(a7,i3,a1)')'LDAS.E',LD%0%EXPCODE,'.
READ(unit=temp,fmt='(80a1)') (FNAME(I),I=1,11)
DO I=1,11
    IF(FNAME(I).EQ.(' '))FNAME(I)='0'
```

```

ENDDO

WRITE(unit=temp,fmt='(a40)') LD%0%ODIR
READ(unit=temp,fmt='(40a1)') (FBASE(I),I=1,40)
C=0
DO I=1,40
    IF(FBASE(I).EQ.(' ')).AND.C.EQ.0)C=I-1
ENDDO

WRITE(unit=temp,fmt='(A4,I3,A6,I4,A1,I4,I2,I2)')'/EXP', &
    LD%0%EXPCODE,'/CLM2/', &
    LD%t%YR,'/ ',LD%T%YR,LD%T%MO,LD%T%DA
READ(unit=temp,fmt='(80A1)') (FYRMODIR(I),I=1,26)
DO I=1,26
    IF(FYRMODIR(I).EQ.(' '))FYRMODIR(I)='0'
ENDDO

WRITE(unit=temp,fmt='(A9)')'mkdir -p '
READ(unit=temp,fmt='(80A1)')(FMKDIR(I),I=1,9)

WRITE(unit=temp,fmt='(80A1)')(FMKDIR(I),I=1,9),(FBASE(I),I=1,C), &
    (FYRMODIR(I),I=1,26)
READ(unit=temp,fmt='(A80)')MKFYRMO

!-----
! Make the directories for the CLM2 output files
!-----
call system(mkfyrmo)
!-----
! Generate file name for binary output
!-----
if(ld%o%wout.eq.1)then
    write(unit=temp,fmt='(I4,I2,I2,I2)')ld%t%yr, &
        ld%t%mo,ld%t%da,ld%t%hr
    read(unit=temp,fmt='(10A1)')ftimeb
    do i=1,10
        if(ftimeb(i).eq.(' '))ftimeb(i)='0'
    enddo

    write(unit=temp,fmt='(A9)')'.CLM2gbin'
    read(unit=temp,fmt='(80A1)') (fsubgb(i),i=1,9)

    write(unit=temp,fmt='(80A1)')(fbase(i),i=1,c), &
        (FYRMODIR(I),I=1,26), &
        (fname(i),i=1,11),(ftimeb(i),i=1,10), &
        (fvarname(i),i=1,length),(fsubgb(i),i=1,9 )
    read(unit=temp,fmt='(A80)')filengb
endif

```

```
if(ld%o%wout.eq.1)then
  open(57,file=filengb,form='unformatted')

  clmdrv%numoutc2=clmdrv%numoutc2+1
  call t2gr(var_array,gtmp,ld%d%glbngrid,ld%d%glbnch,tile)
  write(57) gtmp
!-----
! Write statistical output
!-----
  if(clmdrv%clm2open.eq.0)then
    file='CLMstats.dat'
    call openfile(name,ld%o%odir,ld%o%expcode,file)
    if(ld%o%startcode.eq.1)then
      open(60,file=name,form='formatted',status='unknown', &
            position='append')
    else
      open(60,file=name,form='formatted',status='replace')
    endif
    clmdrv%clm2open=1
  endif

  write(60,996)'      Statistical Summary of CLM Output for: ', &
    ld%t%mo,'/',ld%t%da,'/',ld%t%yr,ld%t%hr,:', &
    ld%t%mn,:',ld%t%ss

996  format(a47,i2,a1,i2,a1,i4,1x,i2,a1,i2,a1,i2)
997  format(t26,'Mean',t40,'StDev',t54,'Min',t68,'Max')

  call stats(var_array,ld%d%udef,ld%d%glbnch,vmean,vstdev,vmin, &
            vmax)
  write(60,999)vname(index),vmean,vstdev,vmin,vmax
  endif
endif
995 format (1x,a10,I1,a9,4f14.3)
999 format (1x,a15,4f14.3)
998 format (1x,a15,4e14.3)
```